

Marine & Tsunami Debris Monitoring & Assessment Project



Sarah Abramson Sikich, Coastal Resources Director, Heal the Bay

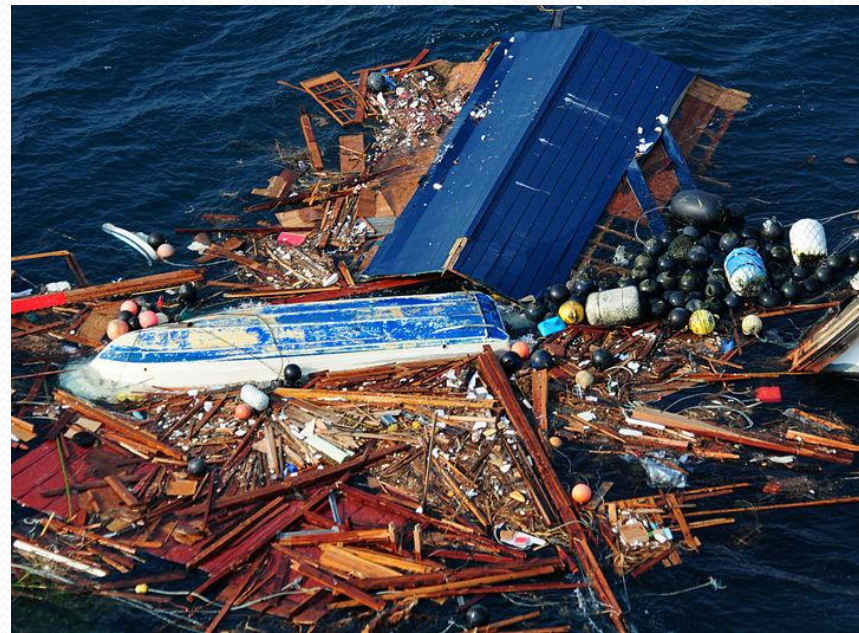
October 18, 2012

An estimated 5 million tons of debris washed to sea after the Tohoku earthquake & tsunami on March 11, 2011

Difficult to track & predict movement

- ~70% debris sank
- Debris field dispersal – wind & currents.

Some buoyant materials have arrived on US shores



Background Information

Marine debris is an every day problem

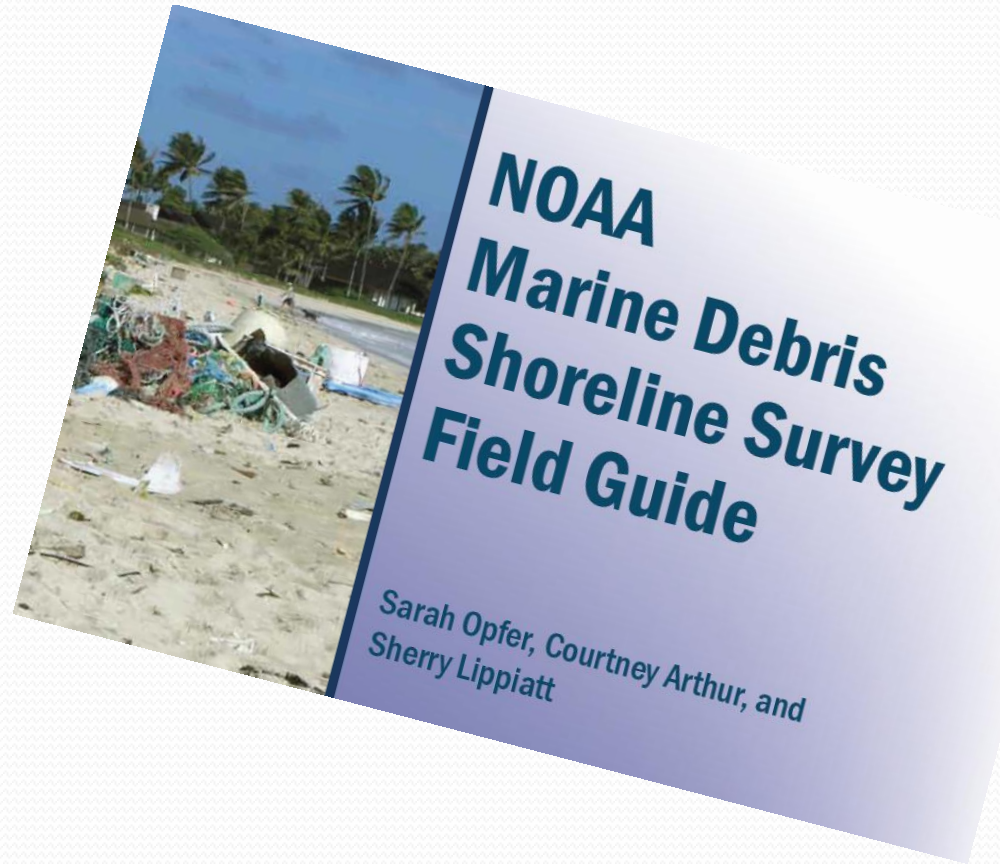
Challenge to ID tsunami debris

Changes in types & quantities of debris may be a sign that tsunami debris is washing ashore



Background Information

- Document debris types, track trends
- Systematically look for tsunami related debris
- Locations : HI, AK, WA, OR, CA
- CA partners: Heal the Bay, Save Our Shores, Ocean Conservancy



Santa Monica Bay Monitoring Locations

Carbon Beach, Malibu



Malaga Cove, Palos Verdes

© 2012 Google
Data LDEO-Columbia, NSF, NOAA
Image © 2012 TerraMetrics
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

34°17'43.74" N 119°01'56.03" W elev 649 ft

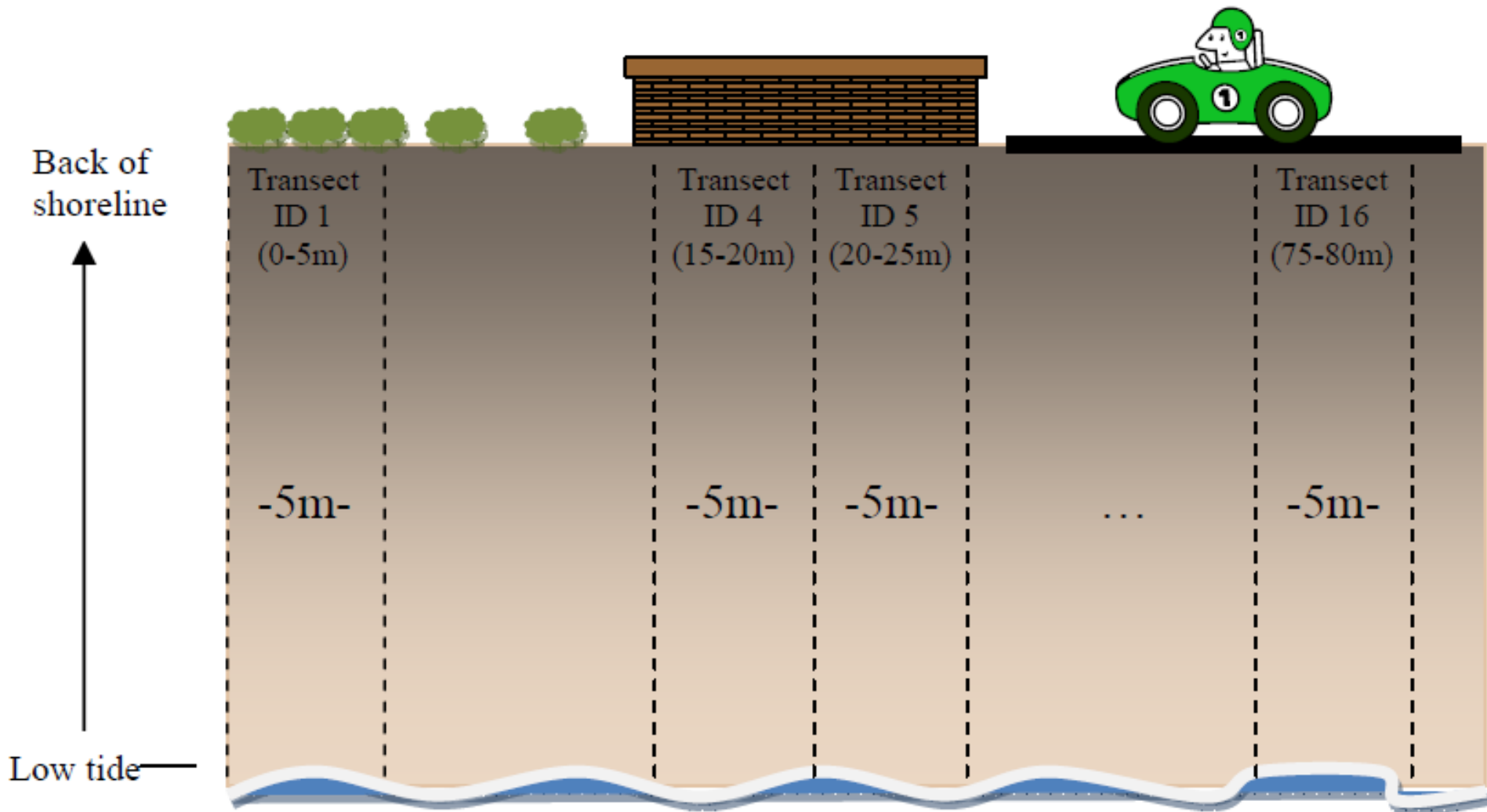
Google

Standing Stock Surveys

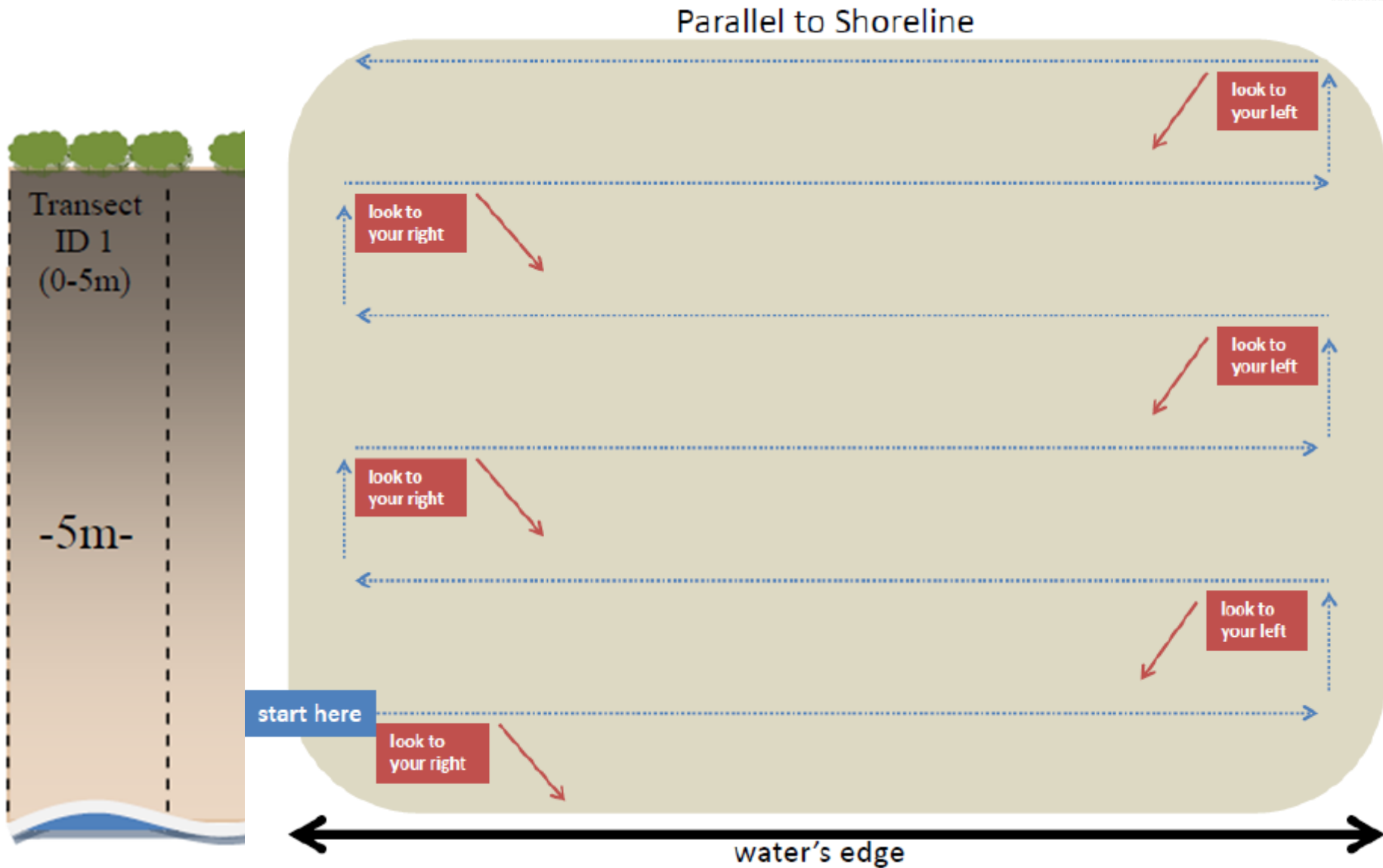
- Assess density & accumulation over time (affected by tides, beach visitation, weather, season, etc.)
- Monthly monitoring @ low tide
- Categorize & tally debris along transects (> 1 in diameter)
- Do not collect debris
- Scout for tsunami related debris



Sample Survey



Survey Pattern



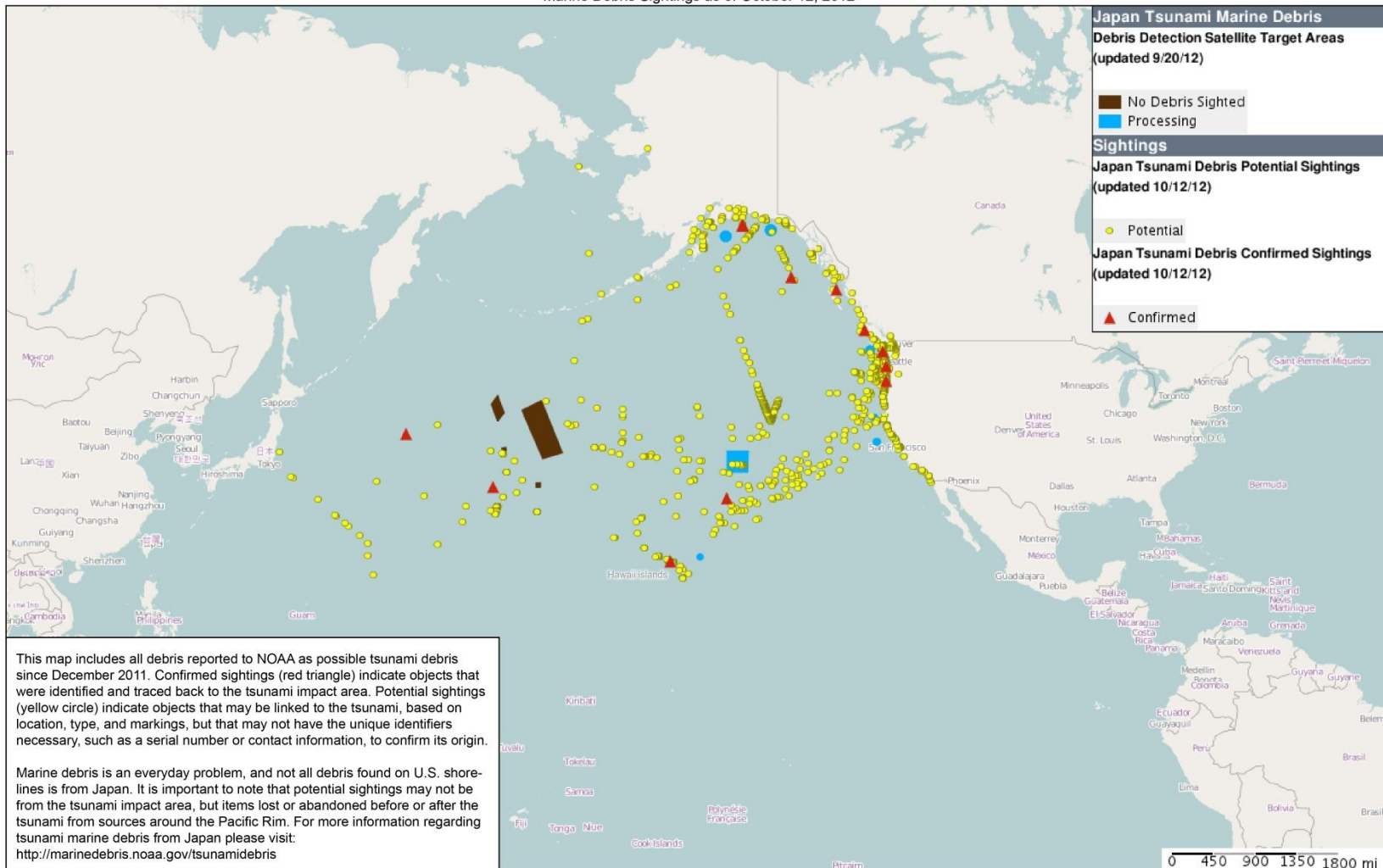
Local Findings

- Began monitoring Jun. '12
- Vast majority plastic debris
- Common items:
 - Foam pieces
 - Plastic film
 - Bottle caps
- Lots of community interest



Tsunami Debris Sightings – Oct 12

Marine Debris Sightings as of October 12, 2012



Recent updates

- Sightings:
 - HI longline boat recovered a skiff off Maui (Oct)
 - >60 bags of debris in Willapa Bay, WA - foam & plastic bottles (many with Asian writing) (Oct)
 - 30x50 ft dock found off Molokai (Sept)
- Japan committed \$6 million to US for clean-up
- CA plans:
 - Joint partnership between NOAA, EPA, US FWS, WA, OR, AK, CA, & BC
 - CA EMA is preparing a plan for debris management if we start to see large amounts



More info: <http://marinedebris.noaa.gov/tsunamidebris/>

What to do if you see likely tsunami debris

- If it poses no threat
 - report to NOAA:
DisasterDebris@noaa.gov
 - report personal items in detail for potential return to Japan
- If it's potentially hazardous:
 - Notify Coast Guard if it poses a navigational hazard
 - Notify local authorities if it is potentially dangerous/toxic (e.g. gas cans, oil drums, chemical storage tanks, etc.)



Thank You



Sarah Sikich – ssikich@healththebay.org – 310.451.1500 x163